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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,214	03/22/2004	Mark Lynn Jenson	1327.008us2	3294

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EXAMINER

CREPEAU, JONATHAN

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/807,214

Applicant(s)

JENSON ET AL.

Examiner

Jonathan S. Crepeau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-41 and 55-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32,34 and 38-41 is/are allowed.
- 6) ☒ Claim(s) 21-31,35-37 and 55-62 is/are rejected.
- 7) ☒ Claim(s) 33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9-6-05.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office action addresses claims 21-41 and 55-62. Claims 32, 34 and 38-41 are allowed, and claim 33 contains allowable subject matter but is objected to. Claims 21-31, 35-37 and 55-62 remain rejected for the reasons of record. Accordingly, this action is made final.

Terminal Disclaimer

2. The terminal disclaimer filed on September 6, 2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,805,998 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Objections

3. Claim 33 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 32. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). In this case, it is believed that claims 32 and 33 cover substantially the same subject matter. In the response of September 6, 2005, Applicant states that claim 33 contains the language “depositing a cathode-conductor of the battery on a face of the integrated circuit

opposite the insulating layer” and is therefore different than claim 32. It is agreed that the language is different, but if interpreted in the way suggested by Applicant, results in an enablement issue regarding claim 33. If the surface of the integrated circuit opposite the insulating layer is interpreted as the *bottom* of the integrated circuit, it is submitted that the instant specification is non-enabling for forming a battery on this bottom surface, i.e., forming a battery between the integrated circuit and the substrate (see Fig. 22 and corresponding text of instant specification). Cancellation of claim 33, or clarification of the above, is required.

Claim Rejections - 35 USC § 102

4. Claims 21-29, 31, 35, and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas et al (U.S. Patent 5,849,426). The reference teaches a hybrid energy system (50) comprising a plurality of batteries (66) integrated with a capacitor (80) into a housing (52, 54). Either portion of the housing may be considered a “substrate” as recited in the instant claims and as such, either the capacitor may be deposited on the substrate (52) and the battery deposited on top of the capacitor, or the battery may be deposited on the substrate (54) and the capacitor deposited on top of the battery. Regarding claims 24 and 25, an integrated circuit would inherently be contained in the portable communication device (100), which is electrically attached via traces (102) to the battery through an insulating layer (54).

Thus, the instant claims are anticipated.

Claim Rejections - 35 USC § 103

5. Claims 36 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al.

The reference is applied to claims 21-29, 31, 35, and 60 for the reasons stated above.

However, the reference does not expressly teach that the substrate comprises a polymer having a melting point substantially below 700 degrees Centigrade, as recited in claims 36 and 55.

However, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the selection of such a polymer as the housing material of Thomas would be an obvious modification. Portable electronic devices are commonly housed in plastic cases, and as such, the selection of such a material for use in Thomas et al. would be obvious to a skilled artisan.

6. Claims 21-23, 28-30, 35, 37, and 55-62 rejected under 35 U.S.C. 103(a) as being unpatentable over Meitav et al (U.S. Patent 6,576,365). The reference is directed to an assembly wherein a plurality of electrochemical cells (comprising electrodes 48 and electrolytes 50) are stacked vertically and horizontally (see Fig. 5). Cells are disposed horizontally adjacent to each other on a substrate (32). The substrate can be a conductive polymer or metal foil (see col. 6, line 54).

The reference does not expressly teach that a battery and a capacitor are located next to each other either in a vertical or horizontal direction as recited in the instant claims. However, the reference teaches in column 1, line 30 that “further, the present invention is more versatile for achieving inter-cell or inter-stack connections in series, parallel, or combinations thereof and for achieving hybrid packs of a battery or batteries combined with a capacitor or capacitors in a single package.” As such, this passage provides sufficient guidance for the artisan to create hybrid systems of batteries and capacitors using the various cells of Meitav et al. Therefore, the use of any combination of batteries and capacitors within a two-dimensional array shown in Fig. 5 of Meitav would be rendered obvious to the skilled artisan.

The reference further does not teach that the assembly is curved so as to have a concave face and a convex face, as recited in claims 35 and 60-62. However, it has been held that changes in shape are generally not patentably significant unless a new or unexpected result is achieved (MPEP 2144.04). As such, the claimed configuration is not considered to distinguish over the reference.

The reference further does not expressly teach the substrate species recited in claims 57-59. However, at column 7, line 23, the reference teaches the following:

Alternatively, the common and terminal current collectors 20 and 22 may comprise any number of layers. The combination of layers and materials may be adjusted to achieve a desired combination of features including stability, lateral conductivity, interfacial contact resistance with the conductive polymer layer, pressure insensitivity, solderability, creep, passivation, contact resistance, and permeability to the electrolyte, as well as, achieving the desired performance characteristics of the overall energy storage component.

Thus, it is seen that the reference contemplates a wide variety of materials and configurations for the substrate/current collectors. As such, the claimed materials would be rendered obvious by the reference.

Response to Arguments

7. Applicant's arguments filed September 6, 2005 have been fully considered but they are not persuasive. Applicants state that the references do not describe or suggest depositing a series of thin-film layers directly on the housing or substrate. Applicant's argument is well-taken, however, it is believed that the term "depositing" is broad enough to read on the disclosures of Meitav and Thomas. *Merriam Webster's Online* defines "deposit" as "to lay down: PLACE." It is submitted that since the devices of Meitav and Thomas are formed by placing layers or devices on a substrate, these references read on the claimed invention. It is suggested that the claims be amended to recite the specific way(s) in which the layers are deposited, as this may be sufficient to patentably distinguish over the references.

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

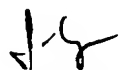
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached at (571) 272-1414. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau
Primary Examiner
Art Unit 1746
November 26, 2005